



Ultraviolet radiation and skin cancer

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Abstract:

Skin cancer is the most common type of cancer in fair-skinned populations in many parts of the world. The incidence, morbidity and mortality rates of skin cancers are increasing and, therefore, pose a significant public health concern. Ultraviolet radiation (UVR) is the major etiologic agent in the development of skin cancers. UVR causes DNA damage and genetic mutations, which subsequently lead to skin cancer. A clearer understanding of UVR is crucial in the prevention of skin cancer. This article reviews UVR, its damaging effects on the skin and its relationship to UV immunosuppression and skin cancer. Several factors influence the amount of UVR reaching the earth's surface, including ozone depletion, UV light elevation, latitude, altitude, and weather conditions. The current treatment modalities utilizing UVR (i.e. phototherapy) can also predispose to skin cancers. Unnecessary exposure to the sun and artificial UVR (tanning lamps) are important personal attributable risks. This article aims to provide a comprehensive overview of skin cancer with an emphasis on carefully evaluated statistics, the epidemiology of UVR-induced skin cancers, incidence rates, risk factors, and preventative behaviors & strategies, including personal behavioral modifications and public educational initiatives.

Source: <http://dx.doi.org/10.1111/j.1365-4632.2010.04474.x>

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Solar Radiation

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Climate Change and Human Health Literature Portal

Cancer, Dermatological Effect

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Racial/Ethnic Subgroup

Other Racial/Ethnic Subgroup: Fair-skinned

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified